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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,625	06/25/2003	Theodore M. Boyd-Davis	BING-1-1004	5054
25315	7590	09/06/2005		
BLACK LOWE & GRAHAM, PLLC 701 FIFTH AVENUE SUITE 4800 SEATTLE, WA 98104			EXAMINER TALBOT, MICHAEL	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,625

Applicant(s)

BOYL-DAVIS ET AL.

Examiner

Michael W. Talbot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-17, 20-32 and 35-42 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 18, 19, 33 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/25/03, 04/01/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "conically shaped apertures" recited in claims 5, 19 and 34 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Refer to page 3, line 23, the side cross-sectional view reference of "A-A" should be changed to read -- 6-6 -- to match that shown in Figure 5.

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Refer to page 5, line 34, the side cross-sectional view reference of "A-A" should be changed to read -- 6-6 -- to match that shown in Figure 5.

Refer to page 7, line 1, the character reference "second baseplate 170" should be changed to read --second baseplate 172--.

Refer to page 7, line 2, the character reference "second baseplate 170" should be changed to read --second baseplate 172--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear as to the claimed limitation by the phrase "the rail comprises a first rail and wherein the track assembly includes a second rail". It is unclear as to the "rail" having a "first rail". For examination purposes, the phrase is being best understood to be --the track assembly comprises a first rail and includes a second rail".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasmussen et al. '244. Rasmussen et al. '244 show in Figures 1-6 an apparatus comprising a

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track assembly adapted to be attached to a workpiece (76) including two rails (44) oriented approximately parallel to one another and having an integrally-formed rack with a plurality of apertures (74) extending along a pitch line that at least approximates the longitudinally-extending neutral axis. Rasmussen et al. '244 shows the track being substantially flat and having a width substantially greater than a thickness causing a stiffer bending moment that extends along the thickness direction and a more pliable bending moment that extends along the width direction.

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

Claims 1-3,6,7,10,13-17,20,21 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams '436. Adams '436 shows in Figures 1-5b an apparatus comprising a track assembly (11) adapted to the workpiece (12,14) via fasteners (28) and mounting steps (25) and vacuum pads (29) including at least one rail having an integrally-formed rack with a plurality of apertures (157) extending along a pitch line that at least approximates the longitudinally-extending neutral axis. Adams '436 shows the track being substantially flat and having a width substantially greater than a thickness causing a stiffer bending moment that extends along the thickness direction and a more pliable bending moment that extends along the width direction. Adams '436 shows a carriage (15) including a tool support (62 in Fig. 17) adapted to receive a manufacturing drill tool (17) moveably (col. 3, lines 20-27) coupled to the track assembly and moveable relative to the translational axis (x-axis) and an opposing-force support assembly (22) coupled to the carriage and adapted to be secured to the workpiece to at least partially counterbalance a manufacturing force exerted on the workpiece by the manufacturing tool (col. 3, lines 20-37). Adams '436 shows the carriage including a drive assembly (144,145,147)

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having a drive motor (144) operatively engaging the track and adapted to drive the carriage along the track (col. 7, line 73 through col. 8, line 38).

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3,6-12,14-17,20-25,27-32 and 35-40 are rejected under 35 U.S.C. 102(e) as being anticipated by *Boyl-Davis et al.* '328.

The applied reference has a common "inventor" with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Boyl-Davis et al. '328 shows in Figures 1-7 an apparatus (20) comprising a track assembly (22,24,28,28') adapted to the workpiece via a plurality of vacuum cups (26) including two rails (22,24) oriented approximately parallel to one another and having an integrally-formed rack (38) with a plurality of apertures (for engagement with pinion gear) extending along a pitch line that at least approximates the longitudinally-extending neutral axis. *Boyl-Davis et al.* '328 shows the track being substantially flat and having a width substantially greater than a thickness causing a stiffer bending moment that extends along the thickness direction and a more pliable bending moment that extends along the width direction (col. 4, line 44 through col. 5, line 4).

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Boyl-Davis et al. '328 shows a carriage (30) including a tool support (70) adapted to receive a manufacturing drill tool (80) moveably coupled to the track assembly and moveable relative to the translational axis (x-axis). Boyl-Davis et al. '328 shows the carriage including a drive assembly adapted to drive the carriage having a drive motor (40) coupled to a drive gear (44) operably engaging the rack (col. 5, line 51-59). Boyl-Davis et al. '328 shows the carriage including an x-axis portion (30) moveable coupled to the track assembly and a y-axis portion (50) moveably coupled to the x-axis portion and moveable with respect to the x-axis portion along the y-axis oriented transversely to the track assembly (col. 6, line 8-24).

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13,26,41 and 42 are rejected under 35 U.S.C. 103(a) as being obvious over Boyl-Davis et al. '328 in view of Adams '436.

The applied reference has a common "inventor" with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter

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disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Boyl-Davis et al. '328 lacks the reference of an opposing-force support member. Adams '436 shows an opposing-force support assembly (22) coupled to the carriage and adapted to be secured to the workpiece to at least partially counterbalance a manufacturing force exerted on the workpiece by the manufacturing tool (col. 3, lines 20-37). In view of this teaching Adams '436, it would have been obvious to include an opposing-force support member of Adams '436 to the carriage of Boyl-Davis et al. '328 to provide a more secure connection between the apparatus and workpiece thus increasing the stabilization of the manufacturing operation resulting in quicker, more precise drilling holes.

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

Allowable Subject Matter

7. Claims 4,5,18,19,33 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

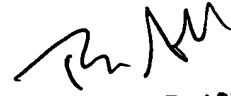
8. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's

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office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mr. Boyer D. Ashley, may be reached at 571-272-4502

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Michael W. Talbot
Examiner
Art Unit 3722
19 August 2005



BOYER D. ASHLEY
PRIMARY EXAMINER